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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,069	08/24/2001	James T. Veligdan	BSA 99-36	4263

7066 7590 06/24/2003

REED SMITH LLP  
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1650 MARKET STREET  
PHILADELPHIA, PA 19103

EXAMINER

CRUZ, MAGDA

ART UNIT PAPER NUMBER

2851

DATE MAILED: 06/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/939,069

Applicant(s)

VELIGDAN ET AL.

Examiner

Magda Cruz

Art Unit

2851

-- **Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 April 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,5-8,12-21,23,25-28 and 32-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 44,45,49 and 50 is/are allowed.
- 6) ☒ Claim(s) 1,3,5-8,12-21,23,25-28,32-43 and 46-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 5-8, 12-14, 16, 21, 23, 25-28, 32-34, 36, 41-43 and 46-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi, et al. in view of Takada et al.

Takahashi, et al. (US Patent Number 4,729,631) discloses an optical display system (Figure 1) for displaying a projected image and method for the same, comprising a projector that projects an image beam (P); a prismatic optical panel (S) optically aligned with said projector, wherein said panel receives said beam, turns said image beam, and displays said turned image beam (column 5, lines 14-36). The panel (S) includes a prismatic first side (1A, 1B) optically aligned with said projector for receiving said image beam at an acute angle of incidence (column 4, lines 25-37), wherein said panel (S) is effective for reflecting said image beam (Figure 4), and wherein said panel displays said reflected image beam from an opposite second side thereof (Figure 3). The panel (S) first side includes a multitude of parallel elongated prisms (1), wherein said imaging optics are aligned with said first side for projecting said image beam transversely across said prism (1) for being transversely expanded at said panel second

Art Unit: 2851

side (column 2, lines 4-15). Each of said prisms includes a first facet (1A) for channeling said image beam therethrough, and an opposite second facet adjoining said first facet (1B) for reflecting said image beam toward said panel second side (1A), having an apex angle ( $\theta_1$ ) therebetween.

Takahashi, et al. teaches the salient features of the present invention, except a diffuser at said panel second side, a mirror coating for effecting specular reflection of the image beam inside the prisms, and a light control layer. However, Takahashi, et al. discloses a total reflection surface comprising a light reflection surface in such a manner that the light entering from the light incidence surface is totally reflected and is then emerged from a front viewing surface (column 2, lines 11-15).

Takada et al. (US Patent Number 6,020,090) discloses a diffuser (523) at said panel second side, a mirror coating (column 25, line 27) for effecting specular reflection of the image beam inside the prisms (614), and a light control layer (column 2, lines 20-30).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the diffuser, mirror coating and light control layer disclosed by Takada et al. in combination with the total reflection surface from Takahashi, et al.'s invention, for the purpose of producing an image capable of increasing a visible area during reproduction (column 1, lines 6-9).

3. Claims 15, 17, 35 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi, et al. in view of Takada et al. as applied to claims 1, 3, 5-

Art Unit: 2851

8, 12-14, 16, 21, 23, 25-28, 32-34, 36, 41-43 and 46-48 above, and further in view of Blanchard.

Takahashi, et al. (US Patent Number 4,729,631) in combination with Takada et al. (US Patent Number 6,020,090) teaches the salient features of the present invention, except microlouvers, which direct the projected image to a desired location, wherein said microlouvers are encased in a thin film comprised of plastic or glass. However, Takahashi, et al. discloses different embodiments for a rear projection screen (column 6, lines 57-66).

Blanchard (US Patent Number 5,543,870) discloses microlouvers (column 8, line 18), which direct the projected image to a desired location (column 8, lines 20-21), wherein said microlouvers are encased in a thin film comprised of plastic or glass (column 7, lines 61-65).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the microlouvers disclosed by Blanchard, in combination with one of the embodiments for a rear projection screen from Takahashi, et al.'s invention, for the purpose of effectively diffusing the image through a wider viewing angle pattern (column 1, lines 44-51).

4. Claims 18-20 and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi, et al. in view of Takada et al. as applied to claims 1, 3, 5-8, 12-14, 16, 21, 23, 25-28, 32-34, 36, 41-43 and 46-48 above, and further in view of Laine et al.

Takahashi, et al. (US Patent Number 4,729,631) in combination with Takada et al. (US Patent Number 6,020,090) teaches the salient features of the present invention, except a panel including a tint comprising dark dye molecules or dark particulates. However, Takahashi, et al. discloses a transparent acrylic resin sheet (column 5, line 35).

Laine et al. (US Patent Number 4,792,209) discloses a panel (i.e. one of the elements of the projection screen; element 12) including a tint comprising dark dye molecules or dark particulates (column 7, lines 61-66).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the panel with the dark dye, disclosed by Laine et al. in substitution of the transparent acrylic resin sheet from Takahashi, et al.'s invention, for the purpose of minimizing the light scattering, thereby improving the sharpness of the image (column 4, lines 22-29).

#### ***Allowable Subject Matter***

5. Claims 44-45 and 49-50 are allowed.
6. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not teach a display system, comprising in combination with the additionally recited elements, microlouvers in dark color such that the ambient light is absorbed thereby enhancing contrast of said projected image.

### ***Response to Arguments***

7. Applicant's arguments filed 04/23/2003 have been fully considered but they are not persuasive.

The applicant has argued that the prior art does not teach the *"a first facet for channeling the image beam therethrough, and an apposite second facet adjoining the first facet for reflecting the image beam toward the panel second side, and a reflective coating at each the second facet for effecting specular reflection of the image beam inside the prisms"*. However, Takahashi, et al. (US Patent Number 4,729,631) teaches such first facet (1B) for channeling the image beam therethrough (column 2, lines 7-11), and an apposite second facet (1A) adjoining the first facet (1B) for reflecting the image beam toward the panel second side (column 2, lines 11-15), and a reflective coating (column 2, line 12) at each the second facet (1A) for effecting specular reflection of the image beam inside the prisms (1).

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the


Art Unit: 2851

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magda Cruz whose telephone number is (703)308-6367. The examiner can normally be reached on Monday through Thursday 8:00-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on (703)308-2847. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9318 for regular communications and (703)872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1782.

  
RUSSELL ADAMS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

Magda Cruz  
Patent Examiner  
June 20, 2003



## Interview Summary

Application No.

09/939,069

Applicant(s)

VELIGDAN ET AL.

Examiner

Magda Cruz

Art Unit

2851

All participants (applicant, applicant's representative, PTO personnel):

(1) Magda Cruz. (3) \_\_\_\_\_.

(2) Matt Esserman. (4) \_\_\_\_\_.

Date of Interview: 21 April 2003.

Type: a) ☒ Telephonic b) ☐ Video Conference  
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.

If Yes, brief description: \_\_\_\_\_.

Claim(s) discussed: 11.

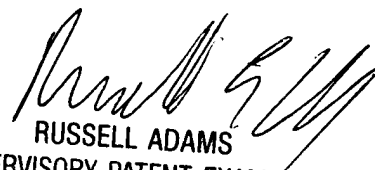
Identification of prior art discussed: Takada, et al. (US Patent Number 6,020,090).

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

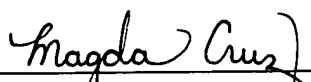
Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: The applicant's representative discussed with the examiner the objected claims that he will rewrite in independent form and claims that would be cancel. Claim 11 will be written in independent form.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

  
RUSSELL ADAMS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

  
Examiner's signature, if required

## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

#### Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

#### 37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case unless both applicant and examiner agree that the examiner will record same. Where the examiner agrees to record the substance of the interview, or when it is adequately recorded on the Form or in an attachment to the Form, the examiner should check the appropriate box at the bottom of the Form which informs the applicant that the submission of a separate record of the substance of the interview as a supplement to the Form is not required.

It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.